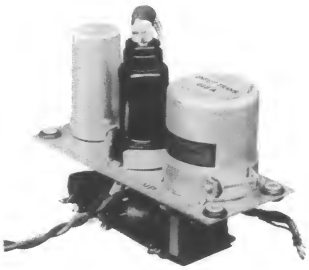
# 116B AMPLIFIER



## GENERAL

The 116B amplifier is a one-stage amplifier utilizing a dc bias gain control. It is designed to work from low level sources into the grid of the tube of a following amplifier. When properly connected, it increases the voltage gain of the combination by approximately 57 db over what is obtained with the normal transformer input. The 116B is a preamplifier used as an integral part of the 124D and other Western Electric amplifiers. Also, it may be mounted on the 142A and 143A amplifiers.

## ELECTRICAL CHARACTERISTICS

Gain - - - - - - - - - Maximum 57 db voltage gain into high impedance circuit.

Source Impedance - - Nominal 30 or 120 ohms. Range 15 to 250 ohms.

Internal Input - - - Impedance High compared with source impedance.

Internal Output - - Impedance High.

Load Impedance - - - Direct connection to the grid input circuit of one tube.

Output Level - - - - Ample to drive 124-, 142-, and 143-type amplifiers to full output.

Output Noise - - - - Depends on associated amplifier.

Frequency Response - ±1 db, 50 to 15,000 cycles.

Gain Control - - - - Provided separately.

Power Supply - - - - 6.3 volts ac or dc 0.3 amperes; 150-300 volts dc (275 volts nominal) - maximum current 4 milliamperes.

## EQUIPMENT CHARACTERISTICS

Dimensions - - - - - 5-1/4" long, 4-1/2" high and 2-3/16" deep.

Weight - - - - - - - Approximately 1/2 pound.

Finish - - - - - - - Light gray.

Mounting - - - - - - 124D amplifier or other Western Electric amplifiers.

## ELECTRON TUBE

(This tube is not supplied with the amplifier and must be ordered separately.)

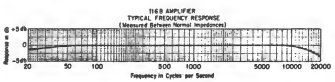
1 - - - - - - - - - - Commercial Type 1612

## REFERENCES

ESO-675850 - - - - - Assembly and Stock List.

ESO-675852 - - - - - Wiring Diagram.

ESO-675851 - - - - - Schematic.

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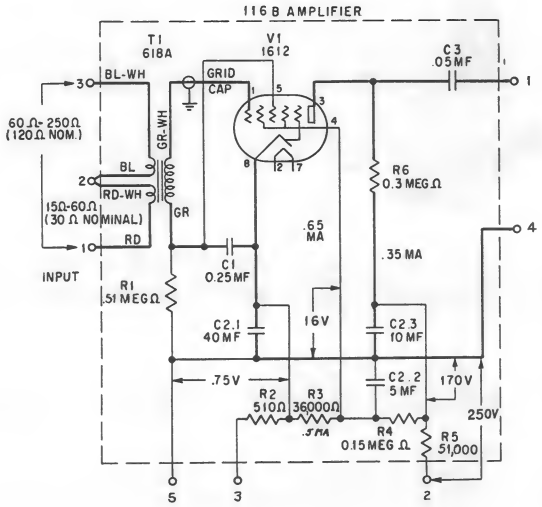
116 B AMPLIFIER
T1
618A
V1
1612
C3
.05MF
GRID
CAP
BL-WH
GR-WH
60Ω-250Ω
(120Ω NOM.)
BL
RD-WH
15Ω-60Ω
(30 Ω NOMINAL)
GR
RD
INPUT
R6
0.3 MEG Ω
.65
MA
.35 MA
C1
0.25MF
R1
.51 MEG Ω
C2.1
40 MF
16V
C2.3
10 MF
.75V
R2
510Ω
R3
36000Ω
.5MA
C2.2
5 MF
170V
250V
R4
0.15MEG Ω
R5
51,000